

USAWC STRATEGY RESEARCH PROJECT

IMPEDANCE TO STRATEGIC PROJECTION:  
ACCESS DENIAL

by

Colonel Kurt I. Peterson  
United States Air Force Reserves

Colonel Charles S. Voelker  
Project Adviser

This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College  
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>18 MAR 2005</b>		2. REPORT TYPE		3. DATES COVERED -	
4. TITLE AND SUBTITLE <b>Impedance to Strategic Projection Access Denial</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) <b>Kurt Peterson</b>				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <b>See attached.</b>					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES <b>33</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			



## ABSTRACT

AUTHOR: Colonel Kurt I Peterson

TITLE: IMPEDANCE TO STRATEGIC PROJECTION: ACCESS DENIAL

FORMAT: Strategy Research Project

DATE: 18 March 2005 PAGES:33 CLASSIFICATION: Unclassified

Access, the ability to operate from foreign basing, installations and airspace, is crucial to the United States' ability to project power and influence throughout the world. On numerous occasions the United States has had to overcome access denial issues. This denied or delayed access has complicated the military planning process.

The United States must actively pursue a policy of limiting the effects of the access issue. With the events of the last couple of years, beginning with the attacks of September 11, 2001, the United States has found itself openly engaged with an enemy that is not confined by historic national borders. This transnational threat must be engaged where it operates. The ability of the United States to operate freely, without the impedance and delays associated with access issues, makes it critical for the United States to ensure it aggressively addresses the access issue.

The purpose of this paper is three fold: first, to examine two historic cases of access denial; second, to explore how the application of national power can influence access denial; finally, to explore the strategies of the Global Strike Task Force and Main Operating Bases that will allow the United States to engage our adversaries regardless of the access issue.



## TABLE OF CONTENTS

ABSTRACT.....	iii
IMPEDANCE TO STRATEGIC PROJECTION: ACCESS DENIAL .....	1
<b>HISTORICAL IMPLICATIONS OF ACCESS DENIAL.....</b>	<b>1</b>
OPERATION EL DORADO CANYON .....	1
OPERATION IRAQI FREEDOM.....	3
<b>HOW NATIONAL POWER CAN INFLUENCE ACCESS DENIAL.....</b>	<b>4</b>
MILITARY MEANS .....	4
DIPLOMATIC MEANS .....	6
ECONOMIC MEANS.....	7
<b>STRATEGIES CONCEPTS TO COUNTER ACCESS DENIAL.....</b>	<b>8</b>
STRATEGIC CONCEPT - GLOBAL STRIKE TASK FORCE .....	8
STRATEGIC CONCEPT - MAIN OPERATING BASES .....	10
<b>CONCLUSION AND RECOMMENDATIONS.....</b>	<b>11</b>
APPENDIX A .....	13
APPENDIX B .....	15
APPENDIX C .....	17
APPENDIX D .....	19
ENDNOTES .....	21
BIBLIOGRAPHY .....	25



## **IMPEDANCE TO STRATEGIC PROJECTION: ACCESS DENIAL**

Access in military terms has two implications. First is the ability of land and air forces to operate from facilities geographically located outside the United States. The second form of access is the capacity to operate over a sovereign territory, i.e. within its airspace. Access to basing and airspace are integral to the success of the United States' foreign policy. One of the four National Military Objectives as prescribed by the National Military Strategy is to "secure strategic access and maintain global freedom of action."<sup>1</sup> The application of military power, be it for force projection, force application or humanitarian concerns, requires the ability to rapidly deploy and employ our military capabilities. Key to our capability to project this power is our ability to access foreign basing, installations and airspace.<sup>2</sup>

The purpose of this paper is threefold: first, I will examine the historical implications of access denial; second, to explore how the application of United States national power, i.e. military, diplomatic and economic means, can limit the occurrences of access denial; third, I will explore two strategies that enable power projection: Global Strike Task Force (GSTF) and the concept of Main Operating Bases, that allow the United States to engage our adversaries regardless of the access issue.

### **HISTORICAL IMPLICATIONS OF ACCESS DENIAL**

While technological advancement has made it almost routine to reach all regions of the globe, admission to these areas has at times been problematic. Below is an examination of two instances of access denial. First, I will look at the effects that airspace denial had on the United States Air Force's Operation El Dorado Canyon. Secondly, I will provide an in-depth look at the issues that drove Turkey's decision to deny access during the initial phases of Operation Iraqi Freedom (OIF).

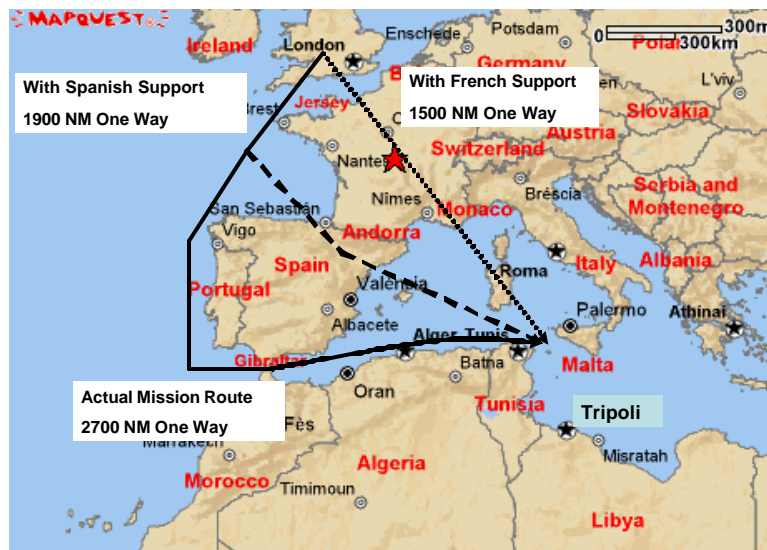
#### **OPERATION EL DORADO CANYON**

The inability to access ground facilities can obviously impair a nation's ability to influence a region. Oftentimes denial can come in more subtle forms. The inability to transit, without permission, a nation's airspace presents a significant hurdle to power projection. Per the Convention of Aerial Navigation, of which the United States is a signature, "every Power has complete and exclusive sovereignty over the air space above its territory...and territorial waters."<sup>3</sup> This sovereignty presented a significant hurdle to the United States Air Force during the execution of Operation El Dorado Canyon, the 1986 punitive bombing strikes against Libya.<sup>4</sup>



El Dorado Canyon called for United States F-111 fighter bombers stationed in England to strike targets in and around the Libyan capital of Tripoli. These strikes were ordered by then President Reagan in response to Libyan support of terrorism and Libyan President Qaddafi's imposing of the "Line of Death" across the Gulf of Sidra. The plan was complicated, with United States Navy carrier based EA-6 aircraft providing electronic countermeasures support, and Air Force KC-10 and KC-135 aircraft providing air refueling support.<sup>5</sup> The plan became even more cumbersome when France and Spain, fearing reprisals from terrorists associated with Libya, refused to allow United States warplanes over-flight permission of their territories.<sup>6</sup>

This access denial required the strike packages to fly around the coast of Spain and through the Straights of Gibraltar. The revised profile added additional flight time and increased the stress levels on the aircrews and the avionics and targeting systems of the aging F-111 aircraft. For aircrews and systems accustomed to flying the 2-3 hour NATO style missions, the circuitous routing required flight times in excess of thirteen hours. The extended flight also increased the air refueling needs of the strike packages. Each of the F-111s required on average to be tanked (mid-air refueled) ten times,<sup>7</sup> again increasing the complexity of the sorties and multiplying the number of mission critical points.



Operation El Dorado Canyon (April 1986)

FIGURE 1

Operation El Dorado Canyon was completed with several targeting problems resulting in some weapons being delivered well off target<sup>8</sup> and some system errors that required held munitions (weapons not released due to inadequate or failed targeting systems).<sup>9</sup> With today's current deployment schedule and limited air refueling asset availability, the increased demands on tanker aircraft alone would require at the very least a delay in the operations while the aircraft were deployed for their support function.

#### OPERATION IRAQI FREEDOM

A more current example of access denial can be found in the 2003 Turkish refusal to allow forces to amass and operate from their territory during the initial combat phases of OIF. This refusal affected both ground and airborne forces and required a major rework of an entire campaign plan. The denied access of this important ally was rooted in economic worries associated with a stagnant national economy and diplomatic issues concerning the issue of the ethnic Kurds and their impact on Turkish homeland security.

First there was the economic piece. In the 1980s Turkey began taking steps to convert their economy from a state run entity to a more privatized market based system.<sup>10</sup> Following the 1991 Gulf War the Turkish economy began to fade. Turkish economists have placed the impact to their country, of the '91 war, at \$100 billion.<sup>11</sup> Most of this negative impact was driven by a loss of trade with Iraq. One of the main sources of trade was Iraqi oil. Before the war, Turkey was a major "handler" of Iraqi oil. A pipeline had been established that carried oil from fields at Kirkuk, Iraq, across Turkey, to the Turkish Mediterranean port at Ceyhan.<sup>12</sup> There it was loaded into tankers and shipped to European markets. Turkey collected a transit fee on the oil. With the 1991 Gulf War and the ensuing sanctions against Iraq this source of income had dried up.

Next, there was the Kurdish homeland issue. The Turks had long been fighting their own war against Kurdish separatists. The Turks believed that many of their problems sprang from the Kurdish settlements in northern Iraq. Turkey was afraid that a toppling of the Hussein government would lead to a splintering of Iraq with a Kurdish state arising in northern Iraq. This would not bode well for Turkish efforts to control Kurdish rebels within its own borders.<sup>13</sup>

The second issue was the Turkish fear of another large scale Kurdish refugee movement across the Turkish border with Iraq. Following the 1991 Gulf War, Turkey was inundated with 450,000 Kurdish refugees from Iraq.<sup>14</sup> The Turks found themselves unprepared and unwilling to deal with housing, feeding and general care of the refugees. When asked by the United States to help out again with the latest military actions against the Hussein government, faced with

unacceptable security and economic issues associated with another probable wave of Kurdish refugees, the Turkish government was unwilling to commit.

What were the impacts of the Turkish denial? The Army's northern front had to be airdropped in via 173<sup>rd</sup> Airborne Brigade.<sup>15</sup> The IV Infantry Division, slated to attack northern Iraq through Turkey, remained afloat in the Mediterranean until the final hour, then steamed to Kuwait and joined the forces moving from the south.<sup>16</sup> Naval air forces, stationed in the Mediterranean, planning to transit Turkish airspace were forced to fly over Egypt, the Red Sea and Saudi Arabia to reach their targets.<sup>17</sup> The Air Force was dealt a double blow. Forces already in Turkey to support Operation Northern Watch were required, at Turkish insistence, to sit out the initial phases of the war. Many of these assets had special training and equipment required to support Special Operations Force's engagements. The remainder of the aircraft slated to deploy to Turkey were either added to already overstressed facilities within the Mediterranean or forced to remain at forward deployed locations in Europe, too far from the fight to be of any use.

### **HOW NATIONAL POWER CAN INFLUENCE ACCESS DENIAL**

The question of access denial has become more acute since the fall of the Iron Curtain. Throughout the entire cold war, the United States was involved in sixteen small scale contingencies throughout the world. Between 1990 and 1997 the United States' involvement had risen to forty-five.<sup>18</sup> There is no evidence of subsidence in this trend. As our presence and world-wide involvement increases, so does our susceptibility to access issues. As General John Jumper, current Air Force Chief of Staff, points out: "...access issues are a few of the factors that now shape the application of American military power."<sup>19</sup>

The 2001 Quadrennial Defense Review (QDR) specifically highlights anti-access as a challenge that must be engaged as the military reorients its current capabilities.<sup>20</sup> The QDR calls for a "Development of a basing system that provides greater flexibility for United States forces in critical areas of the world..."<sup>21</sup> But how does the United States ensure it has access to this basing strategy? Attempts to counter or alleviate access denial are a multi-front engagement using several of our sources of national power to include military, diplomatic, and economic sources of power.

### **MILITARY MEANS**

The military has embraced several initiatives that will prove effective in dealing with some of the root causes of access denial. I will give a cursory look at two of these initiatives: first, the

military efforts at tailoring its force sizes and second, the attempts to add value to the host nation's military through our deployments.

The Air Force, over the past decade, has embraced the Expeditionary Air Force concept with its development of Air Expeditionary Forces (AEF). This concept highlights the need for a smaller footprint while maintaining the desired level of lethality. "The challenge for the Air Force and other services is to find ways to tailor forward deployed forces to provide maximum capability yet still respect regional political sensitivities."<sup>22</sup> It is an effects based concept. The power required of an AEF to deliver the desired effect, be it bombs on target or food in the bowls, will determine the size and structure of the force deployed. This concept limits the number of United States military personnel that a host nation has to oblige.

Aside from the numbers issue, AEF requirements for base infrastructure are drastically reduced. All an AEF requires to be functional is an airport facility, runway environment, and fuel. All other required infrastructure and processes facilitators can be airlifted into place in short order. The idea is that the smaller the footprint, the more likely a host nation will allow access.

This concept was tested in 1995 when the first AEF deployed to Bahrain. Initially the Bahrainis had reservations about allowing a formidable United States military presence within its borders. They wanted to see the concept in action before making any long-term commitment to providing basing and infrastructure support to the AEF concept. Once the details of objective and duration were worked out, the Bahrainis agreed to an initial test deployment of an AEF to their country. Per Lt Gen Jumper, then Commander of 9<sup>th</sup> Air Force and United States Central Command Air Forces, "I think now you'll find that we're welcome back to Bahrain any time."<sup>23</sup> Even taking into account Gen Jumper's perceived over enthusiasm for success, the concept does have merit in countering access issues without giving up lethal capabilities.

The Air Force is not alone in its attempt at footprint reduction. The Army has made great strides in this area and continues to stress the importance of becoming an expeditionary force and developing, per Army Chief of Staff Gen Peter Schoomaker, an "Expeditionary Mindset".<sup>24</sup>

The Army is currently reorienting itself to provide modularity to the combatant commander. The force will be capabilities based and able to tailor its lethality to meet the situation. This modularity will allow the army to "shed excess and redundant capabilities" thus reducing its deployment bulk.<sup>25</sup>

Along these same lines, the Army is concentrating on reducing its logistical footprint.<sup>26</sup> By moving toward the Joint Force concept for logistics, a concept in which each of the services

provides certain capabilities, the Army will reduce surplus resources being deployed to a theater.

Through increased efforts in these two initiatives, reducing combat numbers and the logistical tail, the Army will likely increase the willingness of the host nation to support their deployments and basing requirements.

Another important issue to host nation support is the concept of value added. What intangibles can the United States military bring that aids in host nation acceptance? Aside from the obvious financial enticement, which will be discussed later, the military can have a positive impact on several fronts.

The exchange of ideas and procedures can serve to increase the host nation's military's capability. This was one of the factors that resulted in the positive review of the 1995 AEF to Bahrain. Working alongside United States Air Force maintenance personnel, the Bahrainis were able to adopt some of our procedures. This on-sight exchange of information and techniques allowed the host nation to increase the maintenance efficiencies on its own F-16 fighter aircraft.<sup>27</sup>

Combined exercises are another inroad to host nation acceptance. Again, value is added to the local military via increased opportunity to exchange ideas on tactics, techniques, and procedures. If the United States military makes itself a valuable training asset to the host nation and aggressively pursues exercise opportunities that increase familiarity and trust, then acceptance of our forces in times of crisis will be easier to attain.<sup>28</sup>

#### DIPLOMATIC MEANS

Actively engaged diplomacy is essential to maintaining current access capabilities and opening the access door in regions that are reluctant or firmly opposed to United States presence. Diplomacy means many things to many people. The United States Department of State, per its official web-site, defines diplomacy as "engaging, informing, and influencing key international audiences."<sup>29</sup> This definition fits nicely with the techniques and skills required to grease the wheels of access.

A report produced for the United States Air Force by DFI International, a Washington D.C. based strategic consulting organization; found that one of the key aspects of access denial is the "failure of diplomacy," more than military shortcomings.<sup>30</sup> Per retired General Michael Dugan, a former Air Force Chief of Staff, when speaking of United States and foreign interests; "Finding the convergence [of these interests] and creating the conditions for support options – military or otherwise – is at the heart of statecraft."<sup>31</sup>

Some nations take advantage of access, delayed or denied, to leverage political power against the United States. These opportunities provide a marquee venue to demonstrate displeasure with United States policy, past or present.<sup>32</sup>

The intricacy of the access issue shows the need for the diplomatic corps to stay engaged at all times. This seems easy enough. However, this statement is overly simplistic and unfair to the diplomatic experts. While the competent diplomat can determine the path that needs to be followed to attain the access goal, the resources to reach this goal are oftentimes not within their purview. The Turkish access refusal during OIF is a prime example of old untended concerns abscessing to the point of policy blockage.

## ECONOMIC MEANS

Troop deployments to economically depressed regions can have a significant impact on a country's economic wellbeing. I was fortunate enough to experience this first hand when I deployed in the winter of 2003-2004 as part of a 1,000 troop strong presence at Manas International Airport (approximately 20 kilometers west of the capital city of Bishkek) in Kyrgyzstan. Our base employed 500 local personnel. The jobs offered ran the gambit from manual labor, to air traffic controllers and translators. With over sixty percent of the population living below the poverty line,<sup>33</sup> our impact on the local employment rate was significant.

The direct monetary influence of our deployment was easy to measure. The base spent in excess of \$150,000 per day. These expenditures ranged from land lease payments to the purchase of food stuffs, building materials, and aviation fuel. As Deputy Operations Group Commander, I had weekly meetings with the local and national officials. At several of these meetings the officials expressed their pleasure with our presence. We were showing local airport employees how to make their operations more efficient and at the same time improving their safety record. More importantly, these officials stated that during the eighteen months our installation had been within its borders, we had grown to account for five percent of Kyrgyzstan's gross domestic product.

Aside from the economic impact the deployed forces brought with them, there was the promise of increased aid from the United States. United States economic aid to Kyrgyzstan for 2001 was \$50 million<sup>34</sup>. In 2002 United States economic aid had risen to \$92 million.<sup>35</sup> To help put these figures in perspective, by 2002 estimates Kyrgyzstan had an external debt of \$1.5 billion.<sup>36</sup> A quick math exercise shows that United States economic aid (2002 figures) is equivalent to six percent of Kyrgyzstan's external debt. With continued cooperation with the United States, Kyrgyzstan hopes to maintain the current increased level of economic aid.

## **STRATEGIES CONCEPTS TO COUNTER ACCESS DENIAL**

As we have seen, the issues surrounding access denial are numerous and often represent a web of misunderstandings and long held grudges. The ability to strike at our adversaries, either for short, sharp punitive affects or long-term sustained operations, cannot depend on our ability to get geographically cozy with our opponents. The United States must ensure it has the ability to reach out and influence a region on short notice with a formidable and sustainable presence. To ensure this ability to reach any corner of the world, the United States needs to engage in a dual track strategy. The first track of this strategy is to guarantee we possess the apparatus, through a GSTF, that allows the United States to militarily engage our adversaries from a great distance. The second track of this strategy is to establish geographically centered installations, Main Operating Bases, throughout the world which will allow the United States to operate unimpeded in our pursuit of regional influence.

### **STRATEGIC CONCEPT - GLOBAL STRIKE TASK FORCE**

The GSTF concept is a layered force that has the ability to gather information, identify possible targets, track these targets to resolution, bring weapons to bear and finally ascertain the affect of the actions. The three key pieces of the GSTF are: ISR (Intelligence, Surveillance, and Reconnaissance) platforms, the bomber force required to deliver the weapons, and air refueling assets needed to support the bomber strike missions.

The information gathering and synthesis to target identification is provided by both manned and unmanned aerial platforms. The latest generation of ISR platform is the unmanned aerial vehicles (UAV). These platforms can originate from locations a great distance from the area of interest. What kinds of range can UAVs transverse? In April of 2001 a Global Hawk UAV flew nonstop from the United States to Australia.<sup>37</sup> This amazing trans-Pacific flight of 7,500 miles demonstrates the range of a system, that a mere six years earlier, in 1995, was a part of the Advance Concept Technology Demonstration program.<sup>38</sup>

The system's ability to find and fix targets was demonstrated during OIF. During a sixteen mission period, the Global Hawk located 300 tanks, seventy Surface-to-Air Missile (SAM) transport vehicles, and 50 SAM launchers<sup>39</sup>.

While the UAV has become invaluable to the ISR mission and has proven its ability to find and fix a target, its ability to engage the target is limited. Once a target has been identified and tracked, the strike capability can be provided by way of bomber platforms again operating from great distances.

The current United States bomber fleet, made up of B-52, B-1 and B-2 aircraft, has provided this long range strike capability in support of America's last four conflicts. During Desert Storm, Operations Allied Force, Enduring Freedom and Iraqi Freedom, bomber aircraft launched from bases within the continental United States, struck targets within the theater and returned to home station.

The most complex of these missions were executed during Operation Enduring Freedom (OEF), when B-2 bombers launched from Whiteman Air Force Base (AFB), struck targets in Afghanistan and recovered at Diego Garcia. These forty-four hour combat missions represent the longest aerial strikes in history. Following an engine running aircrew change at Diego Garcia, the B-2s were again airborne for a thirty hour return flight to Whiteman AFB. The B-2 strike missions flown in support of OEF and OIF, graphically depicted at illustrations two and three respectively, represent an air refueling intensive operation.

In the 1980s the United States bomber fleet numbered 360. The road map for the future calls for a combat ready bomber force of just ninety-six.<sup>40</sup> While these numbers show a marked decrease in the sheer number of available airframes, the potency of these systems has risen dramatically. The reduction of the bomber fleet is a positive turn of events. With advances in weapon capability (size, accuracy, and lethality), combined with a change in philosophy that focuses on effects as opposed to absolute destruction of a target, the requirement to field a large bomber force has evaporated. Resources required to support this force have been freed up to invest elsewhere. During OIF one aircraft could engage four targets. This is in contrast to the 1991 Gulf War during which it took four aircraft to destroy one target.<sup>41</sup> These statistics show how the increase in targeting and weapons capability has closed the sheer numbers-to-capability gap within the bomber force.

An area that technology has made no inroads in mission capabilities is the aging tanker fleet. Today's current tanker fleet consists of 477 airframes (423 KC-135s and 54 KC-10s).<sup>42</sup> The KC-135 entered the Air Force inventory in 1957, with the final airframe delivered in 1965.<sup>43</sup> The KC-10, a modified version of the commercial DC-10, came on-line with the Air Force in 1981. With its larger fuel carrying capacity, the KC-10 can provide the fuel offload capability of two KC-135s.<sup>44</sup> While the KC-10 has increased capability, by virtue of the number of aircraft, the KC-135 remains the workhorse of the air refueling fleet.

At over forty years old, the KC-135s aging process has accelerated exponentially over the past three years. Actual flight time flown by the KC-135 fleet has increased from just short of 55,000 hours during fiscal year 2000 to almost 92,000 thousand hours for fiscal year 2003.<sup>45</sup> This 170% increase in flight hours will mark a rapid acceleration of the KC-135 aging process.



By some estimates the KC-135, due to increased maintenance requirements, will provide only a 67% availability rate to the warfighters over the next six years.<sup>46</sup>

In an era of uncertain access and increased global demands, the future requirement for air refueling will far outstrip the Air Force's current capability. The Tanker Requirements Study – 2005, a study conducted by Air Force's Air Mobility Command and the Office of the Secretary of Defense, a total of 607 KC-135 aircraft equivalents will be needed to meet the worldwide air refueling requirements of 2005.<sup>47</sup>

As previously mentioned the bomber missions flown during both OEF and OIF were a dramatic show of long range aerial strike capability (Appendix C and D). But what of the air refueling assets required to support these combat sorties? The OEF strikes required close to 50 tankers operating from five locales to make the strikes a reality. The OIF strikes required tanker support, operating from outside the Central Command theater, in excess of 35 tankers launching from three locales.

At the completion of the strikes, much was written about the phenomenal performance of the B-2 aircraft. Hardly a word addressed the key accomplishment of the tanker assets. In flight line vernacular, tanker aircraft are not sexy. But with the air refueling fleet aging, their demand increasing, and the stringent availability to resources to recapitalize the fleet, the Air Force's ability to reach out and engage its adversaries from great distances is quickly atrophying.

The Air Force had planned to modernize its air refueling fleet by purchasing 80 and leasing 20 new Boeing KC-767 aircraft, with first delivery slated for fiscal year 2006.<sup>48</sup> These aircraft would replace the oldest KC-135 models and dramatically increase the Air Force's capability to meet the air refueling requirements of the next several decades.

On December 2, 2004, Deputy Secretary of Defense Paul Wolfowitz, announced a "pause" in the Air Force's KC-767 program. This delay came on the heels of reported ethics violations on the part of Boeing and Air Force officials.<sup>49</sup> But even if the ethics issues can be cleared up, the question of project financing still remains. In light of the bow wave of Department of Defense expenses associated with the War on Terrorism, the Air Force's top acquisition official, Mr Marvin Sambur, states that the financing required to execute the KC-767 program is "...money we simply do not have."<sup>50</sup>

## STRATEGIC CONCEPT - MAIN OPERATING BASES

The second leg of the strategy is one of regional presence. During the Cold War, to counter the spread of Soviet based communism, the United States pursued a strategy of global

presence. Today's need for global presence must be pursued through a strategy of global reach. Through a series of Main Operating Bases (MOBs) established at key regional locales, the United States will ensure access to infrastructure from which to leverage our power and allow our forces to rapidly reach the world's hot spots.

Locating these MOBs at Diego Garcia, Ascension Island, the Falkland Islands, and Guam, would allow the United States to reach most areas of the world. All of these locations, with the exception of Guam, are territories of the United Kingdom. To ensure access, the United States and the U.K. need to reach joint use agreements similar to those currently in place with regards to Diego Garcia.<sup>51</sup>

These MOBs should not be fully functioning installations with all the requisite forces required to engage an adversary, but merely possess the required facilities to allow a force to "fall in" on the locations and present a formidable lethality in short order.

The heavy equipment needed to enable such force projections is already afloat aboard Maritime and Combat Prepositioning Ships. Currently there are 16 Maritime Prepositioning Ships stationed throughout the world to support United States Marine Corps contingency operations. Likewise, the United States Army currently has ten such ships standing ready to provide equipment, munitions and supplies in support of their possible operations.<sup>52</sup>

MOBs will need to have modern seaport facilities capable of downloading the afloat supplies from the prepositioned ships and transporting these supplies to robust airport facilities. These locations (MOBs) will serve as force marshaling points from which troops will be airlifted to regional areas of interest.

To ensure the functionality of these MOBs and to demonstrate United States interest and force projection capabilities within the region, a robust joint exercise and deployment schedule will need to be developed. These deployments will not only serve to highlight United States interest within a region, these deployments will also provide the opportunity to increase Joint and Coalition capabilities.

## **CONCLUSION AND RECOMMENDATIONS**

Access to foreign basing and airspace is critical to United States policy projection. In his speech on August 26, 2004, Secretary of Defense Donald Rumsfeld highlighted the importance of access as a back drop to military transformation in the face of a morphing adversary: "...our forces today have to be flexible and they have to be agile and they have to be light and they have to be rapidly deployable, usable, not fixed, and capable of going almost anywhere in the world on short notice."<sup>53</sup>

While the United States must continue to pursue the non-force approaches to access denial, we as a military, must be capable and prepared to engage our enemies anywhere in the world, regardless of the access question. To do this, we need the long range capability to gather information, fix targets of interest and when directed engage these targets. The GSTF provides such capability.

Through the use of manned and unmanned reconnaissance assets, long-range weapons delivery platforms and the appropriate fleet of air refueling aircraft standing by to support the task, America will retain its ability to reach and influence the actions of our adversaries.

The United States does not possess the resources nor the desire to have a continuous “in-force” presence throughout the entire world, but we must have the ability to rapidly reach and engage trouble areas. When necessary, we will use our GSTF capability to kick down the door of access denial and allow our forces operating from MOBs to engage our adversaries on a global scale.

The question of access has presented many hurdles throughout history. With the United State’s technological ability to reach any place on the globe, the issue of having the required access to employ this technology can present unneeded obstacles during contingency operations. To maintain its leadership position within the world community, the United States will be required to maintain a global power projection capability for the foreseeable future.

My research on the access issue has led me to two definitive conclusions. First, the sustained need for power projection will require the United States to continue to invest in the technology and platforms required to operate at great distance from the areas of interest (GSTF). Second, the United States will be required to attain long-term usage agreements with the political entities that control key geographical locations throughout the world. Once these agreements have been reached, the United States needs to invest the capital required to establish suitable infrastructure at these locales, ensuring ease of deployment and force marshalling (MOBs).

By shaping our future military forces, staying actively engaged diplomatically, and endeavoring to attain the greatest return of our economic investments, the United States will maintain a global reach capability that is so vital to our national interests.

WORD COUNT=4904

## APPENDIX A

### ACRONYMS – ALPHABETICAL LISTING

AEF – Air Expeditionary Force

AFB – Air Force Base

GSTF – Global Strike Task Force

ISR – Intelligence Surveillance and Reconnaissance

MOB – Main Operating Base

OIF – Operation Iraqi Freedom

OEF – Operation Enduring Freedom

QDR – Quadrennial Defense Review

SAM – Surface to Air Missile

UAV – Unmanned Aerial Vehicle



## APPENDIX B

### AIRCRAFT NOMENCLATURE AND CHARACTERISTICS

- KC-10 Primary Function: Aerial tanker and transport  
Maximum Fuel Load: 356,000 pounds  
Range: 11,500 miles without cargo
- KC-135 Primary Function: Aerial tanker and transport  
Maximum Fuel Load: 200,000 pounds  
Range: 1,500 miles with 150,000 pounds of transfer fuel
- KC-767 Primary Function: Aerial tanker and transport  
Maximum Fuel Load: 195,000 pounds  
Range: 7,600 miles
- B-52 Primary Function: Heavy bomber  
Armament: Approximately 70,000 pounds mixed ordnance -- bombs, mines and missiles. Modified to carry air-launched cruise missiles, Harpoon anti-ship.  
Range: Unrefueled 8,800 miles
- B-1 Primary Function: Long-range, multi-role, heavy bomber  
Armament: Approximately 50,000 pounds mixed ordnance -- bombs, mines and missiles.  
Range: Intercontinental
- B-2 Primary function: Multi-role heavy bomber  
Armament: Conventional or nuclear weapons  
Range: Intercontinental
- F-111 Primary Function: Multipurpose tactical fighter bomber  
Armament: Mixed ordnance  
Range: 3,565 miles with external fuel tanks.  
Retired from service in 1996

F-16    Primary Function: Multirole fighter

Armament: One M-61A1 20mm multibarrel cannon with 500 rounds; external stations can carry up to six air-to-air missiles, conventional air-to-air and air-to-surface munitions and electronic countermeasure pods.

Range: More than 2,000 miles ferry range (no external weapons)

Global Hawk    Primary function: Near-real-time, high-resolution, intelligence, surveillance and reconnaissance imagery

Range: Can fly 1,200 miles to an area of interest and remain on station for 24 hours

## APPENDIX C

### Operation Enduring Freedom B-2 Strike Support



**A/R** Indicates Pre-Strike Air Refueling (Supported from outside CENTCOM AOR)

**A/R** Indicates Post-Strike Air Refueling (Supported from outside CENTCOM AOR)

Air Refueling Provided by KC-135 and KC-10 Assets Operating from Five Locations





## APPENDIX D

### Operation Iraqi Freedom B-2 Strike Support



**A/R** Indicates Pre-Strike Air Refueling

**A/R** Indicates Post-Strike Air Refueling

Campaign Totals:

Tanker Sorties: 200+

B-2 Sorties: 25+

Fuel Offloaded: 9.5+ Million Pounds



## ENDNOTES

<sup>1</sup> Myers, Richard B. *National Military Strategy of the United States of America 2004*. (Washington D.C.: U.S. Joint Chiefs of Staff, 2004), 7.

<sup>2</sup> Shlapak, David A. et al., *A Global Access Strategy for the U.S. Air Force*. (Arlington, Va.: RAND, 2002) 5.

<sup>3</sup> *Convention Relating to the Regulation of Aerial Navigation*. Chapter 1, Article 1 (1919)

<sup>4</sup> Shlapak, 8.

<sup>5</sup> Boyne, Walter J. *El Dorado Canyon*. Air Force Magazine Online March 1999; available from <<http://www.afa.org/magazine/march1999/0399canyon.asp>>; Internet; accessed 15 September 2004.

<sup>6</sup> Ibid.

<sup>7</sup> Ibid.

<sup>8</sup> Shlapak, 8.

<sup>9</sup> Boyne.

<sup>10</sup> "Background Note: Turkey." *U.S. Department of State* 2 October 2004; available from <<http://www.state.gov/r/pa/ei/bgn/3432.htm>>; Internet; accessed 2 October 2004.

<sup>11</sup> "Turkey's Iraq Jitters." *Turkey Update* 18 October 2002; available from <<http://www.csis.org/turkey/tu021018.pdf>>; Internet; accessed 5 October 2004.

<sup>12</sup> "Iraq" *Country Analysis Briefs* 2 October 2004; available from <<http://www.eia.doe.gov/emeu/cabs/iraq.html>>; Internet; accessed 2 October 2004.

<sup>13</sup> Aneja, Atul. "U.S., Turkey discuss Iraq." *The Hindu* 17 July 2002; available from <<http://www.hinduon.com/2002/07/17/stories/2002071701711400.htm>>; Internet; accessed 30 September 2004.

<sup>14</sup> Prusher, Ilene. "Turkey braces for refugee flood." *The Christian Science Monitor* 29 January 2003; available from <<http://www.csmonitor.com/2003/0129/p06s01-worse.htm>>; Internet; accessed 2 October 2004.

<sup>15</sup> Engel, Richard et al., "Northern Attack Opens." *abcNews.com* 26 March 2003; available from [http://abcnews.go.com/sections/world/Primetime/Iraq\\_main030326.html](http://abcnews.go.com/sections/world/Primetime/Iraq_main030326.html); Internet; accessed 30 Sep 2004.

<sup>16</sup> Jenkins, Gareth. "Cold Turkey over Iraq." *Al-Ahram Weekly* 2 April 03; available from <<http://weekly.ahram.or.eg.print/2003/631/sc13.htm>>; Internet; accessed 30 September 2004.

<sup>17</sup> Burgess, Richard. "Naval Aviators Detail Iraqi Freedom Triumphs, Travails at Air Symposium." *Navy League of the United States* June 2004; available from <[http://www.navyleague.org/sea\\_power/jun\\_04\\_33.php](http://www.navyleague.org/sea_power/jun_04_33.php)>; Internet; accessed 30 September 2004.

<sup>18</sup> Jumper, John. "Global Strike Task Force: A Transforming Concept, Forged by Experience." *Aerospace Power Journal* Spring 2001; available from <<http://www.airpower.au.af.mil/airchronicles/apj/apj01/spr01/jumper.htm>>; Internet; accessed 23 September 2004, 2.

<sup>19</sup> Ibid., 8.

<sup>20</sup> Rumsfeld, Donald H. *Quadrennial Defense Review Report*. (Washington D.C.: The Department of Defense, 30 September 2001), IV, 1.

<sup>21</sup> Ibid., 2.

<sup>22</sup> "The Access Issue." *Air Force Magazine Online* October 1998; available from <<http://www.afa.org/magazine/oct1998/1098access.asp>>; Internet; accessed 17 September 2004, 6.

<sup>23</sup> Ibid., 8

<sup>24</sup> U.S. Department of the Army. *The Way Ahead*. Washington, D.C.: Army Strategic Communications; available from <[www.army.mil/thewayahead/foreward.html](http://www.army.mil/thewayahead/foreward.html)>; Internet; accessed 2 October 2004, i.

<sup>25</sup> Ibid., 5

<sup>26</sup> Ibid., 9

<sup>27</sup> Jumper, John. "Operating Abroad." *Air Force magazine Online* December 1998; available from <<http://www.afa.org/magazine/dec1998/1298operating.asp>>; Internet; accessed 24 September 2004.

<sup>28</sup> "The Access Issue.", 8

<sup>29</sup> "Under Secretary for Public Diplomacy and Public Affairs"; available from <[www.state.gov/r/](http://www.state.gov/r/)>; Internet; accessed 1 October 2004.

<sup>30</sup> "The Access Issue.", 5

<sup>31</sup> "The Access Issue.", 6

<sup>32</sup> Siegel, B.. "Base Access Constraints and Crisis Response." *Way Points* Spring 96; available from <<http://www.airpowermaxwell.af.mil/airchronicles/apj/wsiegl.html>>; Internet; accessed 22 September 2004, 4.

<sup>33</sup> "Statistical Data Base." *United Nations* 5 October 2004; available from <[http://unstats.un.org/unsd/mi/mi\\_results.asp?crlD=417&fID=r15](http://unstats.un.org/unsd/mi/mi_results.asp?crlD=417&fID=r15)>; Internet; accessed 5 October 2004.

<sup>34</sup> "Economic Aid – Recipient." *The World Factbook 2003*; available from <<http://www.bartleby.com/151/fields/96.html>>; Internet; accessed 6 October 2004, 2.

<sup>35</sup> Kim, Alena. "U.S. Aid to Kyrgyzstan Augmented." *Kyrgyzstan Daily Digest* 02 Oct 2002; available from <<http://www.eurasianet.org/resource/Kyrgyzstan/hypermail/200210/0004.shtml>>; Internet; accessed 5 October 2004.

<sup>36</sup> "Kyrgyzstan – Debt – External". *Index Mundi*; available from <[http://www.indexmundi.com/Kyrgyzstan/debt\\_external.html](http://www.indexmundi.com/Kyrgyzstan/debt_external.html)>; Internet; accessed 5 October 2004.

<sup>37</sup> "Fact Sheet - Global Hawk." *Department of the Air Force* 18 November 2004; available from <[http://www.af.mil/factsheets/factsheet\\_print.asp?fsID=175&page=1](http://www.af.mil/factsheets/factsheet_print.asp?fsID=175&page=1)>; Internet; accessed 18 November 2004.

<sup>38</sup> Ibid.

<sup>39</sup> "Defense Science Board Study on Unmanned Aerial Vehicles and Uninhabited Combat Aerial Vehicles." *Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics*. February 2004. iii.

<sup>40</sup> "Air and Space Power and the Nation at War." *Air Force Magazine Online* November 2004; available from <<http://wwwl.afa.org/magazine/Nov2004/1104policy.html>>; Internet; accessed 18 November 2004.

<sup>41</sup> Ibid.

<sup>42</sup> "Command Data Book." Headquarters Air Mobility Command Director of Plans and Programs; May 2004, 9 & 12.

<sup>43</sup> "KC-135 Stratotanker." Air Force Link – Fact Sheet: *KC-135 Stratotanker*; available from <<http://www.af.mil/factsheets/factsheet.asp?fsID=110>>; Internet; accessed 28 November 2004.

<sup>44</sup> "KC-10 Extender." Air Force Link – Fact Sheet: *KC-10 Extender*; available from <<http://www.af.mil/factsheets/factsheet.asp?fsID=109>>; Internet; accessed 28 November 2004.

<sup>45</sup> "Command Data Book.", 3

<sup>46</sup> "The Air Force KC-767 Tanker Lease Proposal: Key Issues for Congress." *CRS Report for Congress* 2 September 2003; 27.

<sup>47</sup> "Air Mobility Master Plan 2004." *Headquarters Air Mobility Command*; October 2003, 170.

<sup>48</sup> "Tanker Twilight Zone." *Air Force Magazine Online* February 2004; available from <<http://wwwl.afa.org/magazine/feb2004/0204tanker.html>>; Internet; accessed 28 November 2004.

<sup>49</sup> Ibid.

<sup>50</sup> Ibid.

<sup>51</sup> Brunner, Borgna. "Where in the World Is Diego Garcia?" 7 October 2004; available from <<http://www.infoplease.com/spot/dg.html>>; Internet; accessed 7 October 2004.

<sup>52</sup> "Afloat Prepositioning Force." *U.S. Navy's Military Sealift Command Fact Sheet* 5 October 2004; available from <<http://www.msc.navy.mil/factsheet/apf.asp>>; Internet; accessed 5 October 2004.

<sup>53</sup> Rumsfeld, Donald. "Speech to the Greater Phoenix Leadership". 26 August 2004; available from <<http://www.defenselink.mil/transcripts/2004/tr20040826-secdefl262.html>>; Internet; accessed 22 September 2004.

## BIBLIOGRAPHY

- "Air Mobility Master Plan 2004." *Headquarters Air Mobility Command*; October 2003.
- "Air and Space Power and the Nation at War." *Air Force Magazine Online* November 2004. Available from <<<http://wwwl.afa.org/magazine/Nov2004/1104policy.html>>. Internet. Accessed 18 November 2004.
- "Afloat Prepositioning Force." *U.S. Navy's Military Sealift Command Fact Sheet* 5 October 2004. Available from <<http://www.msc.navy.mil/factsheet/apf.asp>>. Internet. Accessed 5 October 2004.
- Aneja, Atul. "U.S., Turkey discuss Iraq." *The Hindu* 17 July 2002. Available from <<http://www.hinduon.com/2002/07/17/stories/2002071701711400.htm>>. Internet. Accessed 30 September 2004.
- "Background Note: Turkey." *U.S. Department of State* 2 October 2004; available from <<http://www.state.gov/r/pa/ei/bgn/3432.htm>>. Internet. Accessed 2 October 2004.
- Boyne, Walter J. El Dorado Canyon. *Air Force Magazine Online* March 1999. Available from <<http://www.afa.org/magazine/march1999/0399canyon.asp>>. Internet. Accessed 15 September 2004.
- Brunner, Borgna. "Where in the World Is Diego Garcia?" 7 October 2004. Available from <<http://www.infoplease.com/spot/dg.html>>. Internet. Accessed 7 October 2004.
- Burgess, Richard. "Naval Aviators Detail Iraqi Freedom Triumphs, Travails at Air Symposium." *Navy League of the United States* June 2004. Available from <[http://www.navyleague.org/sea\\_power/jun\\_04\\_33.php](http://www.navyleague.org/sea_power/jun_04_33.php)>. Internet. Accessed 30 September 2004.
- "Command Data Book." *Headquarter Air Mobility Command Director of plans and Programs*: May 2004.
- Convention Relating to the Regulation of Aerial Navigation. *Chapter 1, Article 1 (1919)*
- "Defense Science Board Study on Unmanned Aerial Vehicles and Uninhabited Combat Aerial Vehicles." *Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics*. February 2004, iii.
- "Economic Aid – Recipient." *The World Factbook* 2003. Available from <<http://www.bartleby.com/151/fields/96.html>>. Internet. Accessed 6 October 2004.
- Engel, Richard, Tim Scheld, John McWethy, Lisa Sylvester, John Cochran, Brian Hartman, Terry Moran, and Martha Raddatz. "Northern Attack Opens." *abcNews.com* 26 March 2003. Available from <[http://abcnews.go.com/sections/world/Primetime/iraq\\_main030326.html](http://abcnews.go.com/sections/world/Primetime/iraq_main030326.html)>. Internet. Accessed 30 Sep 2004.
- "Fact Sheet – Global Hawk." *Department of the Air Force* 18 November 2004; available from <[http://www.af.mil/factsheets/factsheet\\_print.asp?fsID=175&page=1](http://www.af.mil/factsheets/factsheet_print.asp?fsID=175&page=1)>. Internet. Accessed 18 November 2004.



- Jenkins, Gareth. "Cold Turkey over Iraq." *Al-Ahram Weekly* 2 April 03. Available from <<http://weekly.ahram.or.eg.print/2003/631/sc13.htm>>. Internet. Accessed 30 September 2004.
- Jumper, John. "Global Strike Task Force: A Transforming Concept, Forged by Experience." *Aerospace Power Journal* Spring 2001. Available from <<http://www.airpower.au.af.mil/airchronicles/apj/apj01/spr01/jumper.htm>>. Internet. Accessed 23 September 2004.
- Jumper, John. "Operating Abroad." *Air Force Magazine Online* December 1998. Available from <<http://www.afa.org/magazine/dec1998/1298operating.asp>>. Internet. Accessed 24 September 2004.
- "Iraq" *Country Analysis Briefs* 2 October 2004; available from <<http://www.eia.doe.gov/emeu/cabs/iraq.html>>. Internet. Accessed 2 October 2004.
- "KC-10 Extender." *Air Force Link – Fact Sheet: KC-10 Extender*. Available from <<http://www.af.mil/factsheets/factsheet.asp?fsID=109>>. Internet. Accessed 28 November 2004.
- "KC-135 Stratotanker." *Air Force Link – Fact Sheet: KC-135 Stratotanker*. Available from <<http://www.af.mil/factsheets/factsheet.asp?fsID=110>>. Internet. Accessed 28 November 2004.
- Kim, Alena. "U.S. Aid to Kyrgyzstan Augmented." *Kyrgyzstan Daily Digest* 02 Oct 2002. Available from <<http://www.eurasianet.org/resource/Kyrgyzstan/hypermail/200210/0004.shtml>>. Internet. Accessed 5 October 2004.
- "Kyrgyzstan – Debt – External". *Index Mundi*. Available from [http://www.indexmundi.com/Kyrgyzstan/debt\\_external.html](http://www.indexmundi.com/Kyrgyzstan/debt_external.html)>. Internet. Accessed 5 October 2004.
- Myers, Richard B. National Military Strategy of the United States of America 2004. Washington D.C.: U.S. Joint Chiefs of Staff, 2004.
- "NATO Update 1966". Available from <<http://www.nato.int/docu/update/60-69/1966e.htm>>. Internet. Accessed 29 Sep 2004.
- Prusher, Ilene. "Turkey braces for refugee flood." *The Christian Science Monitor* 29 January 2003. Available from <<http://www.csmonitor.com/2003/0129/p06s01-worse.htm>>. Internet. Accessed 2 October 2004.
- Rumsfeld, Donald H. Quadrennial Defense Review Report. Washington D.C.: *The Department of Defense*, 30 September 2001.
- Rumsfeld, Donald. "Speech to the Greater Phoenix Leadership". 26 August 2004. Available from <<http://www.defenselink.mil/transcripts/2004/tr20040826-secdef1262.html>>. Internet. Accessed 22 September 2004.
- Shlapak, David A., John Stillion, Olga Oliker, and Tanya Charlick-Paley. A Global Access Strategy for the U.S. Air Force. Arlington, Va.: RAND, 2002.

- Siegel, B.. "Base Access Constraints and Crisis Response." *Way Points* Spring 96. Available from <<http://www.airpowermaxwell.af.mi./airchronicles/apj/wsiegl.html>>. Internet. Accessed 22 September 2004.
- "Statistical Data Base." *United Nations* 5 October 2004. Available from <[http://unstats.un.org/unsd/mi/mi\\_results.asp?crlD=417&fID=r15](http://unstats.un.org/unsd/mi/mi_results.asp?crlD=417&fID=r15)>. Internet. Accessed 5 October 2004.
- "Tanker Twilight Zone." *Air Force Magazine Online* February 2004. Available from <<http://www.afa.org/magazine/feb2004/0204tanker.html>>. Internet. Accessed 28 November 2004.
- "The Access Issue." *Air Force Magazine Online* October 1998. Available from <<http://www.afa.org/magazine/oct1998/1098access.asp>>. Internet. Accessed 17 September 2004.
- "The Air Force KC-767 Tanker Lease Proposal: Key Issues for Congress." *CRS Report for Congress* 2 September 2003.
- "Turkey's Iraq Jitters." *Turkey Update* 18 October 2002; available from <<http://www.csis.org/turkey/tu021018.pdf>>. Internet. Accessed 5 October 2004.
- "Under Secretary for Public Diplomacy and Public Affairs". Available from <[www.state.gov/r/](http://www.state.gov/r/)> Internet. Accessed 1 October 2004.
- U.S. Department of the Army. The Way Ahead. Washington, D.C.: *Army Strategic Communications*. Available from <[www.army.mil/thewayahead/foreward.html](http://www.army.mil/thewayahead/foreward.html)>. Internet. Accessed 2 October 2004.

